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REMARKS

Claims 1 through 4, 6 through 14 and 16 through 21 and 23 through 26 are pending.

Claims 5, 15 and 22 have been canceled.

Claims 1 through 4, 6 through 14 and 16 through 21 and 23 through 26 have been rejected under 35 U.S.C. § 103 (a).

Rejections under 35 U.S.C. § 103(a).

Examiner has rejected claims 1 through 4, 6 through 14 and 16 through 21 and 23 through 26 under 35 U.S.C. § 103 (a) as being unpatentable over USPN 7,096,418 (Singhal).

Applicant respectfully traverses the rejection of the claims and requests reconsideration. Below, Applicant sets out subject matter in each of the independent claims not disclosed or suggested by the cited art. In view of this, Applicant believes all the claims are patentable over the cited art.

Independent Claim 1:

Independent claim 1 sets out a server computing system that includes an application. The application includes a persistent process that generates dynamic and interactive hypertext markup language (HTML) content for the application. The application also includes a plurality of transient processes. Each transient process is launched to handle a client request from a client by

parsing the client request, forwarding the client request to the persistent process, capturing a result from the persistent process and forwarding the result to the client. This is not disclosed by Singhal.

Singhal discloses a dynamic web page cache that stores web pages such that servers are able to retrieve valid dynamic pages without going to a dynamic content server or the origin web server for the page. See the Abstract. Singhal does not disclose or suggest an application within a server computer system that includes both a persistent process and a plurality of transient processes as set out by claim 1.

Figure 4 shows the basic steps performed by the systems disclosed by Singhal. Specifically; in step 402, a user starts by requesting a dynamic page using the user's browser 202. If it is available, a "yes" outcome at the decision box 406, it is then sent to the user in step 410 and then eventually received by the user via the user's browser in step 426. If the requested dynamic page, the origin dynamic content cache in turn searches its local cache for the requested page, in step 408. If the requested dynamic page is not available in either the ISP dynamic content cache (box 212 in FIGS. 2A and 2B) or the origin dynamic content cache (box 214 in FIGS. 2A and 2B), the requested dynamic page is generated in step 414 (usually by a script, a web server software, and a data source) by the origin web server 208, the origin dynamic content server 210, and/or, optionally, deriving data from the data files 228. See Singhal at column 6, line 57 through column 7, line 42.

Figure 4 of Singhal does not describe a transient process within an application that runs on a server computer. Rather, Figure 4 of Singhal describes a process that utilizes, among other entities, a dynamic content cache, and an original dynamic content server in addition to a web server 208. Singhal makes no mention of whether an application within a web server utilizes persistent or transient processes. Where Singhal does mention the operation of web servers, the description is the use of conventional web server scripts. Nothing is mentioned that would disclose or suggest the subject matter set out in claim 1 of the present case.

For example, Singhal discloses the following: "If the requested dynamic page is not available in either the ISP dynamic content cache (box 212 in FIGS. 2A and 2B) or the origin dynamic content cache (box 214 in FIGS. 2A and 2B), the requested dynamic page is generated in step 414 (*usually by a script, a web server software, and a data source*) by the origin web server 208...". See Singhal at column 7, lines 11 through 17 (emphasis added). Thus Singhal discloses only the conventional method of generating dynamic pages within a web server.

**Response to New Arguments Raised by Examiner:**

In the Office Action dated January 7, 2008, Examiner has made the following arguments on page 6:

Singhal's system must inherently utilize a transient process which launches within a server system in order to service user requests...

Singhal's system inherently utilizes a persistent process in order to perform ...complicated and memory intensive processing...

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Failure for applicant to significantly narrow definition/scope of the claims implies the applicant intends broad interpretation be given to the claims.

In Claim 1 the application comprises a persistent process and a plurality of transient processes. The persistent process and the transient processes perform different tasks.

Examiner has argued that Singhal's system must inherently utilize a transient process and must inherently utilize a persistent process. Even if this is the case, there is no inherent need for a persistent process within Singhal's system to perform the specific tasks set out in claim 1 and there is no inherent need for transient processes within Singhal's system to perform the specific tasks set out in claim 1.

For example, Table 1 below sets out the different tasks performed by each of the processes as set out very specifically in claim 1.

Table 1

Entity	Tasks
Persistent process	(1) generates dynamic and interactive hypertext markup language (HTML) content for the application (2) performs background processing when no client requests are pending, the background processing including caching in memory
Transient processes	(1) handles a client request from a client by parsing the client request, (2) forwards the client request to the persistent process, (3) captures a result from the persistent process, (4) forwards the result to the client

The information in Table 1 is not disclosed by the prior art. For example,

in the prior art, transient processes generated dynamic content without forwarding client request to persistent processes. This is specifically pointed out in the Specification at page 2, line 17 through page 3, line 4, where Applicant indicates that the standard method for generating dynamic content is to use the Common Gateway Interface (CGI). In this model, a user request for dynamic content arrives at a web server and is handled by execution of a specific program on the web server, usually in a protected memory space. The program then terminates after the dynamic content is generated.

Claim 1 differs from the prior art in that, instead of transient processes generating dynamic content themselves, a persistent process generates dynamic and interactive hypertext markup language (HTML) content for the application and performs background processing when no client requests are pending, the background processing including caching in memory. As set out in claim 1, the role of the transient process is launched to handle a client request from a client by parsing the client request, forwarding the client request to the persistent process, capturing a result from the persistent process and forwarding the result to the client.

Examiner's reliance on the "inherent" existence of transient and persistent processes within Singhal is essentially an admission that Singhal does not specifically describe transient processes or persistent processes. Without a specific description of transient or persistent processes, it is impossible to determine within Singhal which tasks are performed by transient processes and which tasks are performed by persistent processes. Since the prior art discloses

and teaches away from the specific tasks performed by the persistent process set out in claim 1, it is clear that the division of tasks between the persistent process and transient processes set out in claim 1 is not inherent in Singhal.

To establish a *prima facie* case of obviousness, a prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Examiner's reliance on persistent processes and transient processes that are "inherent" within Singhal fails to meet Examiner's burden to show that Singhal teaches or suggest all the claim limitations.

**Independent Claim 12:**

Independent claim 12 sets out a computer-implemented method performed within a server. In step (a) of claim 12, a persistent process that generates dynamic and interactive hypertext markup language (HTML) content for an application is run. In step (b) of claim 12, a transient process is launched to handle each client request. This is not disclosed or suggested by Singhal.

As discussed above, Singhal discloses a dynamic web page cache that stores web pages such that servers are able to retrieve valid dynamic pages without going to a dynamic content server or the origin web server for the page.

See the Abstract. Singhal does not disclose or suggest an application within a

server computer system that includes a persistent process and uses transient processes to handle client requests as set out by claim 12.

Figure 4 shows the basic steps performed by the systems disclosed by Singhal. Specifically, in step 402, a user starts by requesting a dynamic page using the user's browser 202. If it is available, a "yes" outcome at the decision box 406, it is then sent to the user in step 410 and then eventually received by the user via the user's browser in step 426. If the requested dynamic page, the origin dynamic content cache in turn searches its local cache for the requested page, in step 408. If the requested dynamic page is not available in either the ISP dynamic content cache (box 212 in FIGS. 2A and 2B) or the origin dynamic content cache (box 214 in FIGS. 2A and 2B), the requested dynamic page is generated in step 414 (usually by a script, a web server software, and a data source) by the origin web server 208, the origin dynamic content server 210, and/or, optionally, deriving data from the data files 228. See Singhal at column 6, line 57 through column 7, line 42.

Singhal makes no mention of whether an application within a web server utilizes persistent or transient processes. Where Singhal does mention the operation of web servers, the description is the use of conventional web server scripts. Nothing is mentioned that would disclose or suggest the subject matter set out in claim 12 of the present case.

For example, Singhal discloses the following: "If the requested dynamic page is not available in either the ISP dynamic content cache (box 212 in FIGS. 2A and 2B) or the origin dynamic content cache (box 214 in FIGS. 2A and 2B), the

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requested dynamic page is generated in step 414 (*usually by a script, a web server software, and a data source*) by the origin web server 208...". See Singhal at column 7, lines 11 through 17 (emphasis added). Thus Singhal discloses only the conventional method of generating dynamic pages within a web server.

Singhal does not disclose or suggest a computer-implemented method performed within a server where a persistent process generates dynamic and interactive hypertext markup language (HTML) content for an application and a transient process is launched to handle each client request., as set out in claim 12 of the present application.

**Independent Claim 21:**

Independent claim 21 sets out storage media that stores a computer application. The computer application, when executed on a computing system comprises a persistent process that generates dynamic and interactive hypertext markup language (HTML) content for the computer application. The computer application also includes a plurality of transient processes. Each transient process is launched to handle a client request from a client by parsing the client request, forwarding the client request to the persistent process, capturing a result from the persistent process and forwarding the result to the client. This is not disclosed by Singhal.

Singhal discloses a dynamic web page cache that stores web pages such that servers are able to retrieve valid dynamic pages without going to a dynamic content server or the origin web server for the page. See the Abstract.



Singhal does not disclose or suggest an application within a computer system that includes both a persistent process and a plurality of transient processes as set out by claim 21.

Figure 4 shows the basic steps performed by the systems disclosed by Singhal. Specifically, in step 402, a user starts by requesting a dynamic page using the user's browser 202. If it is available, a "yes" outcome at the decision box 406, it is then sent to the user in step 410 and then eventually received by the user via the user's browser in step 426. If the requested dynamic page, the origin dynamic content cache in turn searches its local cache for the requested page, in step 408. If the requested dynamic page is not available in either the ISP dynamic content cache (box 212 in FIGS. 2A and 2B) or the origin dynamic content cache (box 214 in FIGS. 2A and 2B), the requested dynamic page is generated in step 414 (usually by a script, a web server software, and a data source) by the origin web server 208, the origin dynamic content server 210, and/or, optionally, deriving data from the data files 228. See Singhal at column 6, line 57 through column 7, line 42.

Singhal makes no mention of whether an application within a computer system utilizes persistent or transient processes. Where Singhal does mention the operation of web servers, the description is the use of conventional web server scripts. Nothing is mentioned that would disclose or suggest the subject matter set out in claim 21 of the present case.

For example, Singhal discloses the following: "If the requested dynamic page is not available in either the ISP dynamic content cache (box 212 in FIGS.

2A and 2B) or the origin dynamic content cache (box 214 in FIGS. 2A and 2B), the requested dynamic page is generated in step 414 (*usually by a script, a web server software, and a data source*) by the origin web server 208...". See Singhal at column 7, lines 11 through 17 (emphasis added). Thus Singhal discloses only the conventional method of generating dynamic pages within a web server.


Singhal does not disclose or suggest a computer application that, when executed on a computing system, comprises a persistent process that generates dynamic and interactive hypertext markup language (HTML) content for the computer application and a plurality of transient processes, as set out in claim 21 of the present application.

#### Conclusion

Applicant believes that the present case is in condition for allowance and favorable action is respectfully requested.

Respectfully submitted,

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